

CLAIMS

1. A sterilization method for sterilizing an object to be sterilized within a chamber, comprising:

a decompression step of decompressing said chamber;

a hydrogen peroxide supply step of supplying hydrogen peroxide into said chamber;

an ozone supply step of supplying ozone into said chamber;

a sterilization step of sterilizing the object to be sterilized by diffusing the hydrogen peroxide and ozone supplied within said chamber;

an exhaust step of exhausting gas from within said chamber; and

a plasma generation step of generating plasma within said chamber.

2. The sterilization method according to Claim 1, wherein said exhaust step comprises a decomposition step in which gas being exhausted from said chamber is broken down into oxygen and water.

3. The sterilization method according to Claim 1, wherein said exhaust step comprises a decomposition step in which the ozone in the gas being exhausted from said chamber is broken down.

4. The sterilization method according to Claim 1, wherein said sterilization step comprises a step of circulating the sterilization gas in said chamber.

5. A sterilization apparatus comprising:

a chamber capable of housing an object to be sterilized;

a decompression unit for decompressing the inside of said chamber;

a hydrogen peroxide supply unit for supplying hydrogen peroxide into said chamber;

an ozone supply unit for supplying ozone into said chamber;

an exhaust unit for exhausting gas from within said chamber; and

a plasma generation unit for generating plasma within said chamber.

6. The sterilization apparatus according to Claim 5, wherein said hydrogen peroxide supply unit comprises an antiscattering member to prevent the hydrogen peroxide supplied in liquid form to the inside of said chamber from scattering.

7. The sterilization apparatus according to Claim 5, wherein said exhaust unit has a gas decomposition unit for breaking down gas being exhausted from said chamber into oxygen and

water.

8. The sterilization apparatus according to Claim 5, wherein said exhaust unit comprises an ozone decomposition catalyst for breaking down ozone in gas being exhausted from said chamber.

9. The sterilization apparatus according to Claim 5, further comprising a sterilization gas circulation unit for circulating sterilization gas in said chamber.

10. The sterilization apparatus according to Claim 5, wherein said plasma generator has a high-voltage electrode and a low-voltage electrode within said chamber, and either said high-voltage electrode or said low-voltage electrode comprises a plurality of point electrodes surrounded by an insulator.

11. The sterilization apparatus according to Claim 10, wherein said high-voltage electrode is connected to a high-voltage power source, while the low-voltage electrode is grounded.